position of the supernumerary incisors, and in the number, and direction of the curvature, of the molars. If, moreover, the lower jaw, next to be described, belong, as I believe, to the Toxodon, the dental character of the genus will be *incisors* $\frac{1}{5}$; *pro laniariis diastema; molares* $\frac{7}{7}$.

The Toxodon again deviates from the true Rodentia, and resembles the Wombat, and the Pachyderms, in the transverse direction of the articular cavity of the lower jaw.

It deviates from the Rodentia, and resembles the Pachydermata in the relative position of the glenoid cavities and zygomatic arches, and in many minor details already alluded to.

In the aspect of the plane of the occipital foramen, and occipital region of the skull; in the form and position of the occipital condyles; in the aspect of the plane of the anterior bony aperture of the nostrils; and in the thickness and texture of the osseous parietes of the skull, the Toxodon deviates both from the Rodentia and existing Pachydermata, and manifests an affinity to the Dinotherium and Cetaceous Order, especially the Herbivorous section.

At present we possess no evidence to determine whether the extremities of the Toxodon were organized on the ungulate or unguiculate type, nor can we be positive, from the characters which the skull affords, that the genus may not be referrible to the *Mutica* of Linnæus;* although the development of the nasal cavity and the presence of large frontal sinuses render it extremely improbable that the habits of this species were so strictly aquatic, as the total absence of hinder extremities would occasion.

Where the dentition of a mammiferous animal is strictly carnivorous, this structure is obviously incompatible with a foot incased in a hoof: — but where the teeth are adapted for triturating vegetable substances the case is different. If animals so characterized are of small size and seek their food in trees, or if they burrow for roots or for shelter, the vegetable type of dentition must co-exist with unguiculate extremities, as in the Edentata and Rodentia generally: but the largest genus (Hydrochærus) of the Rodent Order, whose affinity to the Pachydermata is manifested in its heavy shapeless trunk, thinly scattered bristly hair, and many other particulars, has each of its toes inclosed in a miniature hoof.

The affinity above alluded to, is too obvious to have escaped popular notice, and the Capybara, from its aquatic habits, has obtained the name of Water-hog. It is highly interesting to find that the continent to which this existing aberrant

* The German Translator (See *Frorieps Notizen.*, 1837, p. 119) of the abstract of my description of the Toxodon, published in the Proceedings of the Geological Society, asks, what is the *Mutica* (misprinted *Muticata*), of Linnæus? The term is quoted from the Systema Naturæ, Ed. xii. p. 24. Linnæus first divides Mammalia into three groups, according to modifications of the locomotive organs, viz. *Unguiculata*, *Ungulata*, *Mutica*, and subdivides these, according to modifications of the dentary organs, into the orders, *Bruat*, *Glires*, *Primates*, &c.

form of Rodent is peculiar, should be found to contain the remains of an extinct genus, characterized by a dentition which closely resembles the Rodent type, but manifesting it on a gigantic scale, and tending to complete the chain of affinities which links the Pachydermatous with the Rodent and Cetaceous Orders.

ADMEASUREMENTS OF THE CRANIUM OF TOXODON.	feet	inches	lines
Extreme length	2	4	...
Extreme breadth	1	4	..
Extreme height, (exclusive of the lower jaw)	...	10	...
Length of zygomatic process	1	1	6
Depth or vertical extent of do.	...	6	...
Transverse extent of zygomatic fossa	...	6	...
Transverse diameter of cranium between the zygomatic arches	...	5	...
Transverse diameter of occipital plane of the cranium	1	...	...
From the outside of one condyle to that of the opposite condyle	...	8	6
Length of the bony palate	1	6	...
Extreme breadth of ditto	...	6	...
Breadth of palate at the intermaxillary suture	...	2	6
Do. do. behind the molar alveoli	...	3	...
Longitudinal extent of the molar alveoli	...	9	6
Do. do. diastema	...	5	6
Transverse diameter of posterior nasal aperture	...	3	9
Do. do. of occipital foramen	...	3	...
Do. do. of glenoid cavity	...	4	6
Antero-posterior do of ditto	...	1	...

DESCRIPTION OF FRAGMENTS OF A LOWER JAW AND TEETH OF A TOXODON.

Found at Bahia Blanca, in latitude 39° on the East coast of South America.

In looking over some fragments of jaws and teeth, forming part of Mr. Darwin's collection of South American mammiferous remains, and which had been set aside with mutilated specimens referrible to species belonging to the family of Edentata, my attention was caught by the appearance of roots of teeth projecting, in a different direction from the grinders, from the fractured anterior extremity of a lower jaw, and I was induced to examine minutely the structure of the teeth in this specimen, and to search the collection for corresponding fragments. The result was the discovery of portions of the two rami, and the commencement of the symphysis of a lower jaw, containing anteriorly the roots of